

Art Unit: 1700

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02/10/04

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Cancel claims 1-12

13. A system for recovering a portion of energy associated with an air separation unit for supplying oxygen rich gas to feed air of a blast furnace comprising:

an air separation unit fed at least partially with a first portion of a feed air to a blast furnace from which an oxygen rich product is removed from the air separation unit and mixed with a remaining portion of the blast furnace feed air and fed to the blast furnace; removing a second gas from the air separation unit and heating the second gas; and, expanding the second gas to recover energy.

14. The system of Claim 13 wherein the second gas is heated by heat exchange with a combustion product.

15. The system of Claim 13 wherein the second gas is mixed with a combustion product.

16. The system of Claim 13 wherein an off gas of the blast furnace is a fuel for a combustion chamber to heat the second gas.

17. The system of Claim 13 further comprising mixing additional air with the first portion.